Dear Colleagues,

I have just released a report, California Electricity Price Spikes: An Update on the Facts, which can be downloaded by going to www.lecg.com and following the links to Practices; Electric Power, Oil and Gas; Research Papers & Testimony; California Electricity Markets.

The paper examines the demand/supply balance in California and the West during the May 2000 to June 2001 period, in which electricity prices spiked to extremely high levels. While some analysts have blamed much of the increase in prices on the exercise of market power, fundamental demand and supply data appear to show, instead, a picture more like that of a perfect storm, in which a number of unfavorable demand/supply events improbably coincided, contributing substantially to increases in electricity prices.

The data show that from May 2000 to June 2001 the West faced a shortage situation more extreme than in any year in recent history, including the drought year of 1994. Demand for energy in the West was generally higher in 2000 and the first half of 2001 than in previous years. At the same time, supply was lower due to a number of factors; most important was a substantial reduction in hydroelectric generation in the Pacific Northwest and Canada.

The extraordinarily tight demand/supply balance led to increased demand for gas-fired electricity generation during the second half of 2000 and the first half of 2001. This increased electricity prices for a number of reasons. The increased reliance on gas-fired generation occurred during a period when gas prices were peaking far above their usual levels. High demand also pushed up the cost of the emission allowances needed for some gas-fired generation. Finally, to make matters worse, the impact of increasing gas and emission allowance prices was magnified by the need to operate less efficient and higher emission gas-fired generating units during the supply shortage, which further raised electricity supply costs. The increased cost of supply from gas-fired units led directly to higher market prices for electricity.

Interestingly, the data show that during the second half of 2000 and first half of 2001 both the electricity output and hours on-line of non-utility generator (NUG) units were much higher than in any year in recent history. Whether particular generation was withheld from the market on specific days at specific units will continue to be the subject of investigation. What is clear is that a case for economic or physical withholding of NUG generation will need to show that output could have been increased even further above the high levels observed, while remaining profitable on the margin at lower prices.

Please contact me at spope@lecg.com if you have any questions or comments on the paper. For those of you who are also working on this topic, please note that all of the supporting data are available on the lecg.com website.

Susan L. Pope, December 10, 2002

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